NOVARTIS AG
Form 6-K
September 16, 2010

SECURITIES AND EXCHANGE COMMISSION

Washington, D.C. 20549

FORM 6-K

REPORT OF FOREIGN PRIVATE ISSUER

PURSUANT TO RULE 13a-16 or 15d-16 OF

THE SECURITIES EXCHANGE ACT OF 1934

Report on Form 6-K dated September 15, 2010

(Commission File No. 1-15024)

Novartis AG

(Name of Registrant)

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Switzerland

(Address of Principal Executive Offices)

Indicate by check mark whether the registrant files or will file annual reports under cover of Form 20-F or Form 40-F:

Form 20-F: x Form 40-F: o

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Yes: o **No**: x

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- Investor Relations Release -

Novartis JAK inhibitor provides marked and durable clinical benefits in patients with myelofibrosis, a rare, life-threatening blood cancer

- *Myelofibrosis is a blood cancer characterized by bone marrow failure, enlarged spleen, poor quality of life and shortened survival(1)*

- *Phase I/II data published in NEJM demonstrate clinical benefits of JAK1 and JAK2 inhibitor INC424, including reduction of spleen size and alleviation of debilitating symptoms(2)*

- *Novartis licensed INC424 outside US from Incyte, complementing broad oncology portfolio of potential treatments for rare diseases; Phase III trials are fully enrolled*

Basel, September 15, 2010 Results from a Phase I/II study of the Novartis Janus kinase (JAK) inhibitor with the investigational name INC424 (also known as INCB018424 and INCB18424) were published today in *The New England Journal of Medicine,* demonstrating marked and durable clinical benefits in patients with myelofibrosis(2). Novartis has licensed INC424 from Incyte for development and potential commercialization outside the US. Incyte has retained rights for the development and potential commercialization of INC424 in the US.

Myelofibrosis is a rare, life-threatening blood cancer characterized by bone marrow failure, enlarged spleen (splenomegaly), debilitating symptoms, poor quality of life, weight loss and shortened survival(1). Both the US Food and Drug Administration and the European Medicines Agency have granted INC424 orphan drug status for myelofibrosis.

The Phase I/II study of 153 patients showed that approximately 75% of myelofibrosis patients receiving INC424 twice-daily experienced rapid reduction in spleen size, which was durable for more than one year of follow-up. After only one month of therapy, patients with debilitating symptoms including fatigue, night sweats and pruritus (itching) also achieved more than 50% improvement in symptom scores, as measured by the Myelofibrosis Symptom Assessment Form. Patients, particularly those with weight loss, experienced a clinically meaningful gain in total body weight following treatment. Additional clinical benefits observed in the study included improved functional status and increased exercise capacity. These clinical benefits were accompanied by reductions in circulating cytokines, inflammation-causing proteins in the blood that are markedly elevated in patients with myelofibrosis(2).

Two Phase III clinical trials, COMFORT-I in the US, Canada and Australia, and COMFORT-II in Europe, have completed enrollment and are evaluating the benefits of treatment with INC424 compared to either placebo or best available care(3),(4).

Effective therapies are desperately needed for patients with myelofibrosis, which has a poor prognosis, especially when advanced, said lead investigator Srdan Verstovsek, MD, PhD, of MD Anderson Cancer Center, Houston, Texas. We currently have no therapeutic options for these

patients in the US, and the rapid and durable clinical benefits observed in this study show a real potential to provide a way to alleviate suffering.

A strong association exists between abnormal JAK signaling and the development of myelofibrosis, polycythemia vera and essential thrombocythemia, a related group of conditions referred to as myeloproliferative neoplasms(5-8). Patients with these diseases can progress to secondary acute myelogenous leukemia, which is virtually untreatable and is associated with a dismal prognosis(9),(10). The discovery of JAK mutations common to myelofibrosis, polycythemia vera and essential thrombocythemia has linked them on a molecular level and has led to the development of INC424, a potent, selective inhibitor of the JAK1 and JAK2 tyrosine kinases(11).

Complementing our rich hematology-oncology pipeline in rare diseases, this promising JAK inhibitor exemplifies the Novartis commitment to developing new therapies for patients with unmet medical needs, said Alessandro Riva, MD, Global Head, Oncology Development & Medical Affairs, Novartis Oncology. We are pleased to contribute our expertise to the global development of INC424, complementing and leveraging Incyte s work for myelofibrosis patients in the US.

Study details

The open-label, non-randomized, dose-escalation Phase I/II study, conducted by Incyte, included 153 patients with myelofibrosis, and was undertaken at MD Anderson Cancer Center and Mayo Clinic. Primary outcome measures were safety and tolerability. The secondary outcome measure was preliminary effectiveness(2).

In this study, a starting dose of 15 mg twice-daily with individualized dose titration was found to be the most effective and safest dose of INC424. Median duration of therapy exceeded one year. Notably, improvements occurred in patients regardless of JAK mutational status. Investigators observed that treatment with INC424 reduced levels of inflammatory cytokines in the blood, which they believe could provide a rational biological explanation for the mutation-independent response to therapy(2).

INC424 provided rapid and sustained reduction in splenomegaly, resolution of constitutional symptoms, improvement of performance status and exercise capacity and weight gain. At the starting dose of 15 mg twice-daily, 48% of patients achieved at least a 35% reduction in spleen volume. Symptoms of myelofibrosis not directly related to splenomegaly, including night sweats, fevers, fatigue, weight loss and pruritus, also improved in response to INC424. Other clinical benefits included normalization of elevated platelet and white cell counts. Reduction in cytokine levels while on therapy, presumably through JAK1 inhibition, paralleled improvements in patients systemic symptoms(2).

At the time of the data analysis, the median duration of therapy for 153 patients enrolled in the study was 14.7 months and 115 (75%) were still receiving INC424. Non-hematologic side effects related to therapy were infrequent (<10%) and of low grade. Hematologic side effects included anemia and thrombocytopenia (reduced platelet counts). Thrombocytopenia was the dose-limiting toxicity of the drug. Mean hemoglobin levels decreased during the first three to four cycles of therapy and then stabilized or improved with continued treatment. Serious adverse events occurred in 59 patients, of whom 12 experienced serious adverse events that were considered at least possibly related to treatment(2).

About myelofibrosis

Myelofibrosis is a Philadelphia chromosome-negative myeloproliferative neoplasm associated with bone marrow failure, splenomegaly, debilitating symptoms and shortened survival. Of the JAK-associated myeloproliferative neoplasms, myelofibrosis carries the greatest risk of a poor prognosis, including transformation to fatal acute myelogenous leukemia. For myelofibrosis patients in general, clinical findings such as

splenomegaly, anemia and constitutional symptoms may significantly reduce quality of life(1),(12),(13).

The disease has a high unmet medical need. Although allogeneic stem cell transplantation may cure myelofibrosis, the procedure is associated with significant morbidity and mortality and is usually appropriate only in younger patients(1). The five-year survival rate after transplantation is about 50%(14).

Disclaimer

The foregoing release contains forward-looking statements that can be identified by terminology such as potential, pipeline, promising, commitment, or similar expressions, or by express or implied discussions regarding the potential future submission or approval for marketing of INC424, or regarding potential future revenues from INC424. You should not place undue reliance on these statements. Such forward-looking statements reflect the current views of management regarding future events, and involve known and unknown risks, uncertainties and other factors that may cause actual results with INC424 to be materially different from any future results, performance or achievements expressed or implied by such statements. There can be no guarantee that INC424 will be submitted or approved for sale in any market. Nor can there be any guarantee that INC424 will achieve any particular levels of revenue in the future. In particular, management s expectations regarding INC424 could be affected by, among other things, unexpected clinical trial results, including unexpected new clinical data and unexpected additional analysis of existing clinical data; unexpected regulatory actions or delays or government regulation generally; the company s ability to obtain or maintain patent or other proprietary intellectual property protection; competition in general; government, industry and general public pricing pressures; the impact that the foregoing factors could have on the values attributed to the Novartis Group s assets and liabilities as recorded in the Group s consolidated balance sheet, and other risks and factors referred to in Novartis AG s current Form 20-F on file with the US Securities and Exchange Commission. Should one or more of these risks or uncertainties materialize, or should underlying assumptions prove incorrect, actual results may vary materially from those anticipated, believed, estimated or expected. Novartis is providing the information in this press release as of this date and does not undertake any obligation to update any forward-looking statements contained in this press release as a result of new information, future events or otherwise.

About Novartis

Novartis provides healthcare solutions that address the evolving needs of patients and societies. Focused solely on healthcare, Novartis offers a diversified portfolio to best meet these needs: innovative medicines, cost-saving generic pharmaceuticals, preventive vaccines, diagnostic tools and consumer health products. Novartis is the only company with leading positions in these areas. In 2009, the Group s continuing operations achieved net sales of USD 44.3 billion, while approximately USD 7.5 billion was invested in R&D activities throughout the Group. Headquartered in Basel, Switzerland, Novartis Group companies employ approximately 102,000 full-time-equivalent associates and operate in more than 140 countries around the world. For more information, please visit http://www.novartis.com.

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SIGNATURES

Pursuant to the requirements of the Securities Exchange Act of 1934, the registrant has duly caused this report to be signed on its behalf by the undersigned, thereunto duly authorized.

Novartis AG

Date: September 15, 2010

By: /s/ MALCOLM B. CHEETHAM

Name: Malcolm B. Cheetham
Title: Head Group Financial Reporting and Accounting